

The Patent Office alleges that EP '593 teaches all of the limitations recited in the present claims. Specifically, the Patent Office alleges that Fig. 22 of EP '593 shows the power operated hydraulic source, a manually operable brake operating member, a master cylinder, and a flow-rate changing device, as required in claims 1, 2 and 4. Applicant respectfully disagrees.

In the "Response to Arguments" section in the Office Action mailed on March 24, 2006, it appears that the Patent Office now understands that the assisting drive force control device 538 of Fig. 22 of EP '593 is not provided to change the relationship between the first rate of flow of the fluid from the master cylinder 500 into the brake cylinder and the second rate of flow of the fluid into the master cylinder. That is, the assisting drive force control device is not arranged for selective delivery of the fluid from the pump 70 into the assisting pressure chamber 512 or into the pressurizing chamber 508 (510) during the "normal braking" as indicated in Fig. 23 (described in paragraph [0153] of EP '593) in which the shut-off valve 546 is held closed.

The Patent Office now alleges that the automatic braking mode shown in Fig. 23 of EP '593 can reasonably be considered "normal braking operation" as recited in claims 1, 2 and 4 because no malfunction is present in the automatic braking as taught by EP '593. Applicant respectfully disagrees with this allegation.

Applicant submits that according to claims 1, 2 and 4, the normal braking operation is a braking operation that controls the pressure of the brake cylinder with an operation of the manually operable brake operating member (e.g., brake pedal 24), in which the brake cylinder pressure changes with a change of the operating amount of the brake operating member. Applicant submits that the normal braking operation as recited in claims 1, 2 and 4 clearly differs from the automatic braking operation as described in paragraph [0154], Figs. 22 and 23 of EP '593.

As explained above, the normal braking operation as recited in the present claims is the braking operation to control the pressure of the brake cylinder with an operation of the manually operable brake operating member (e.g., the brake pedal 24), in which the brake cylinder pressure changes with a change of the operating amount of the brake operating member. In contrast, the automatic braking operation as described in EP '593 is a braking operation effected "without an operation of the brake pedal 10" (manually operable brake operating member), such as vehicle stability control. See paragraph [0154] of EP '593. Further, EP '593 refers to three braking operations effected without any operation of the brake operating member, namely, traction control operation (to prevent excessive slipping of vehicle drive wheels upon starting or acceleration of the vehicle), vehicle stability control operation as indicated above (to improve stability of turning or cornering of the vehicle), and an emergency brake control operation (to prevent collision of the vehicle or ensure a minimum distance of the vehicle to the preceding vehicle). See page 3, lines 52-58 of EP '593. These braking operations are performed automatically, that is, without an operation of the brake operating member by the vehicle operator, and are called "automatic braking operation" (paragraph [0154] of EP '593) or "automatic braking" (Fig. 23 of EP '593).

Applicant thus submits that the normal braking operation as recited in claims 1, 2 and 4 is not anticipated by the automatic braking taught by EP '593, although no malfunction is present in the automatic braking, as alleged by the Patent Office.

Moreover, Applicant notes that EP '593 fails to teach or suggest selective delivery of the fluid from the pump 70 into the assisting pressure chamber 512 or into the pressurizing chamber 508, even during the "automatic braking", as indicated in Fig. 23 of EP '593.

Regarding the pressure increase during the automatic braking, EP '593 describes that the shut-off valve 546 is opened so that the pressurized fluid whose pressure is controlled by the assisting drive force control device 538 is supplied to not only the assisting pressure

chamber 512, but also to the pressurizing chamber 508 (see paragraph [0154] of EP '593). However, the pressurized fluid cannot be supplied to the assisting pressure chamber 512 because (1) the piston 504 is biased by springs 517, 518, (2) the pressure-receiving surface area of the pressurizing chamber 508 is larger than that of the assisting pressure chamber 512, and (3) a shut-off valve corresponding to the shut-off valve 90 as shown in Fig. 1 of the present application is absent. In other words, when the shut-off valve 546 is open, the pressurized fluid is supplied to only the pressurizing chamber 508. EP '593 does not teach or suggest that the pressurized fluid is delivered from the pump 70 selectively into the assisting pressure chamber 512 or the pressurizing chamber 508.

In contrast, the present application requires that the pressurizing fluid is first delivered to the assisting pressure chamber 512, and then delivered to the pressurizing chamber 508, during an increase of the operating amount of the brake pedal. See Fig. 9 of the present specification.

The Patent Office further refers to page 3, lines 24-45 of EP '593 as allegedly teaching or suggesting a change of the flow rate in response to vehicle speed or temperature. Applicant submits that this portion of EP '593 describes that the "assisting drive force" may be controlled according to the vehicle running speed, vehicle ambient temperature or distance to the preceding vehicle or object. However, Applicant submits that this portion of EP '593 does not teach or suggest changing the first fluid flow rate with respect to the second fluid flow rate, as required in the present claims.

Applicant thus submits that EP '593 fails to teach the flow-rate changing device as recited in claims 1, 2 and 4, which is operable during the normal braking operation to change the first rate of flow of the fluid from the master cylinder into the brake cylinder, with respect to the second rate of flow of the fluid into the master cylinder.

II. Rejoinder

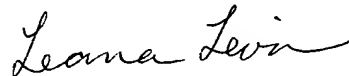
Claims 5, 8, 9 and 12-14 are currently withdrawn from consideration. However, as these claims depend from claim 1, rejoinder is respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-17 and 30 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Leana Levin
Registration No. 51,939

JAO:LL/can

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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